

**IN THE SPECIFICATION:**

Please replace paragraph [0016] as follows:

[0016] In one embodiment, the amorphous carbon layer is formed from a gas mixture of a hydrocarbon compound and an inert gas such as argon, helium, xenon, krypton, neon, or combinations thereof. Preferably, the carbon source is a gaseous hydrocarbon, such as a linear hydrocarbon. In one embodiment, the hydrocarbon compound has a general formula  $C_xH_y$ , where x has a range of between 2 and 4 and y has a range of between 2 and 10. For example, propylene ( $C_3H_6$ ), propyne ( $C_3H_4$ ), propane ( $C_3H_8$ ), butane ( $C_4H_{10}$ ), butylene ( $C_4H_8$ ), butadiene ( $C_4H_6$ ), or acetelyne acetylene ( $C_2H_2$ ) as well as combinations thereof, may be used as the hydrocarbon compound. Similarly, a variety of gases such as hydrogen ( $H_2$ ), nitrogen ( $N_2$ ), ammonia ( $NH_3$ ), or combinations thereof, among others, may be added to the gas mixture, if desired. Ar, He, and  $N_2$  may be used to control the density and deposition rate of the amorphous carbon layer. The addition of  $H_2$  and/or  $NH_3$  can be used to control the hydrogen ratio of the amorphous carbon layer, as discussed below.

Please replace paragraph [0031] as follows:

[0031] Figures 4A-4D show an embodiment in which all of the first non-carbon based layer 205 is removed during processing. Figure 4A corresponds to Figure 3C, except that the first non-carbon based layer 205 has been removed. A second non-carbon based layer 220 is then deposited on the amorphous carbon layer 204 and the exposed substrate 202, and a photoresist 222 is deposited on the second non-carbon based layer 220, as shown in Figure 4B. The photoresist 222 is patterned to include features 224, as shown in Figure 4C. The features 224 patterned in the photoresist 222 are transferred to the amorphous carbon layer 204 and the non-carbon based layer 220 to creates feature 208 in the in the amorphous carbon layer 204 and the non-carbon based layer 220, and the photoresist 222 is removed, as shown in [[Figure4]] Figure 4.

Figure 4D substantially corresponds to Figure 3E. The substrate 202 is then etched, as shown in Figure 3F.